

AMENDMENTS TO THE CLAIMS

1-31 (Canceled)

32. (New) A method for therapeutically or prophylactically treating a subject to activate conceptus migration, promote conceptus implantation on the uterine wall, therapeutic or prophylactic treat sterility, promote pregnancy, control interaction between conceptus and maternal system, activate immunocyte migration, and/or control immune function in the uterus,

said method comprises administering to a subject, in need thereof, a composition comprising an effective amount of at least one member selected from the group consisting of:

- (i) an IP-10 protein,
 - (ii) an IP-10 protein analogue or derivative having at least a deletion, addition, and/or substitution of one or more amino acid residues and having a biological activity essentially equal or equivalent to that of the intact IP-10 protein;
 - (iii) an IP-10 protein encoded by a nucleotide sequence comprising at least an open reading frame portion in SEQ ID NO: 1 and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein;
 - (iv) an IP-10 protein encoded by a nucleotide sequence that hybridizes to SEQ ID NO: 1 under stringent conditions and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein;
 - (v) an IP-10 protein comprising the amino acid sequence of SEQ ID NO: 2; and
 - (vi) an IP-10 protein comprising an amino acid sequence having at least 80% homology to SEQ ID NO: 2 and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein,
- or a pharmaceutically acceptable salt thereof.

33. (New) The method of claim 32, wherein the IP-10 protein is obtained from a mammal selected from the group consisting of human, bovine, buffalo, equine, donkey, ovine, goat, camel, swine, deer, reindeer, yak, canine, cat, and ape.

34. (New) The method of claim 32, wherein said IP-10 protein of (vi) comprises an amino acid sequence having at least 95% homology to SEQ ID NO: 2 and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein.

35. (New) The method of claim 32, wherein said subject is a human or a non-human animal.

36. (New) The method of claim 32, wherein said method promotes or accelerates conceptus implantation.

37. (New) The method of claim 32, wherein said method promotes embryo implantation in a female.

38. (New) The method of claim 32, wherein said method therapeutically or prophylactically treats sterility.

39. (New) A method for treating a subject to inhibit or suppress conceptus implantation, induce or facilitate sterility, and/or inhibit or suppress sterility, said method comprises administering to a subject, in need thereof, a composition comprising an effective amount of at least one member selected from the group consisting of:

(i) anti-IP-10 antibodies; and

(ii) an IP-10 protein analogue or derivative having at least a deletion, addition, and/or substitution of one or more amino acid residues and having a biological activity that inhibits the activity of the intact IP-10 protein;

or a pharmaceutically acceptable salt thereof.